

Title (en)

TECHNIQUE FOR TUNING THE RESONANCE FREQUENCY OF AN ELECTRIC-BASED ANTENNA

Title (de)

TECHNIK ZUR ABSTIMMUNG DER RESONANZFREQUENZ EINER ANTENNE AUF ELEKTRISCHER BASIS

Title (fr)

TECHNIQUE D'ACCORD DE LA FRÉQUENCE DE RÉSONANCE D'UNE ANTENNE ÉLECTRIQUE

Publication

**EP 3785324 B1 20230503 (EN)**

Application

**EP 19716507 A 20190328**

Priority

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- GB 2019050895 W 20190328

Abstract (en)

[origin: GB2573149A] An antenna apparatus, or a method of tuning such an apparatus, comprises: providing an antenna element 10 coupled to a ground plane 20 where at least one groundplane portion 50 extends in an E-field direction 60, towards the antenna element 10, forming a capacitive coupling to the antenna element. The resonant frequency of the antenna is obtained, when in use, and the ground plane extension portions 50 are adjusted to move the said resonant frequency towards that of a desired resonant frequency. The said adjustment may involve the removal of one or more of the ground plane extensions 50. The antenna element 10 may be short circuited 30 at a particular location to the ground plane 20. The antenna element 10 and its feed 40 may be coplanar with the ground plane 20. A plurality of antenna elements may likewise be arranged on the peripheral edge of a common ground plane and the said elements may be oriented in orthogonal directions relative to one another and they may have different resonant frequencies. The ground plane may be also be used for other antennas. The antenna element may be an inverted-F antenna. The length of the antenna element 10 may be reduced in the tuning process. The above antenna and method may suitably tune an antenna after it has been integrated within the deployment environment.

IPC 8 full level

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